

DIMMING BALLAST CONTROL IC WITH
FLASH SUPPRESSION CIRCUIT

ABSTRACT OF THE DISCLOSURE

A dimming electronic ballast control provides flash suppression by igniting the fluorescent lamp at a high power level, and then reducing the power output level to the appropriate dimming set level. The electronic ballast includes an integrated circuit that uses closed loop phase control and a VCO to control a switching frequency of a half bridge, which in turn controls power delivered to the fluorescent lamp. Current through the half bridge is sensed to provide closed loop control. The current sense signal is used to provide a high power level in the electronic ballast during ignition of the lamp, and as a phase detector for the phase control. A rate of change control circuit controls the speed of adjustment between power level settings, especially during ignition of the lamp. The electronic ballast provides a wide linear dimming range with fault detection and flash suppression.